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<b>TRANSMITTAL FORM</b>  (to be used for all correspondence after initial filing)		Application Number	10/715,722
		Filing Date	November 17, 2003
		First Named Inventor	Ralph A. DALLA BETTA
		Art Unit	3616
		Examiner Name	Not Yet Assigned
Total Number of Pages in This Submission	8 pages + 13 references	Attorney Docket Number	220772010800

ENCLOSURES (Check all that apply)		
<input type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> After Allowance Communication to Group
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SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual name	MORRISON & FOERSTER LLP (Customer No. 25226) Jill A. Jacobson - 40,030
Signature	<i>Jill A. Jacobson</i>
Date	April 13, 2004

I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as First Class Mail, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date shown below.	
Dated: April 13, 2004	Signature: <i>[Signature]</i> (Wei Y. Leung)



PATENT  
Docket No. 220772010800

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Mei Leung

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In the application of:

Ralph A. DALLA BETTA et al.

Serial No.: 10/715,722

Filing Date: November 17, 2003

For: DEVICES AND METHODS FOR  
REDUCTION OF NOx EMISSIONS  
FROM LEAN BURN ENGINES

Examiner: Not Yet Assigned

Group Art Unit: 3616

**INFORMATION DISCLOSURE  
STATEMENT UNDER 37 C.F.R. § 1.97 & 1.98**

Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 C.F.R. § 1.97 and § 1.98, Applicants submit for consideration in the above-identified application the documents listed on the attached Form PTO-1449. Pursuant to the USPTO notice dated July 11, 2003, waiving the requirement under 37 C.F.R. § 1.98 (a)(2)(i) to provide copies of U.S. Patents and U.S. Published Applications, copies of those references are not submitted. Copies of foreign documents and non-patent literature are submitted herewith. The Examiner is requested to make these documents of record.

This Information Disclosure Statement is submitted:

- ☐ With the application; accordingly, no fee or separate requirements are required.
- ☒ Within three months of the application filing date or before mailing of a first Office Action on the merits; accordingly, no fee or separate requirements are required.
- ☐ After receipt of a first Office Action on the merits but before mailing of a final Office Action or Notice of Allowance.
  - ☐ A fee is required. A check in the amount of is enclosed.
  - ☐ A fee is required. Accordingly, a Fee Transmittal form (PTO/SB/17) is attached to this submission in duplicate.
  - ☐ A Certification under 37 C.F.R. § 1.97(e) is provided below; accordingly; no fee is believed to be due.
- ☐ After mailing of a final Office Action or Notice of Allowance, but before payment of the issue fee.
  - ☐ A Certification under 37 C.F.R. § 1.97(e) is provided below and a check in the amount of is enclosed.
  - ☐ A Certification under 37 C.F.R. § 1.97(e) is provided below and a Fee Transmittal form (PTO/SB/17) is attached to this submission in duplicate.

Applicants would appreciate the Examiner initialing and returning the Form PTO-1449, indicating that the information has been considered and made of record herein.

The information contained in this Information Disclosure Statement under 37 C.F.R. § 1.97 is not to be construed as a representation that: (i) a complete search has been made; (ii) additional information material to the examination of this application does not exist; (iii) the information, protocols, results and the like reported by third parties are accurate or enabling; or (iv) the above information constitutes prior art to the subject invention.

In the unlikely event that the transmittal letter is separated from this document and the Patent Office determines that an extension and/or other relief is required, Applicants petition for any required relief including extensions of time and authorize the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing **220772010800**. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Dated: April 13, 2004

Respectfully submitted,

By: Jill A. Jacobson  
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Form PTO-1449

Docket Number 2207720010800

Application Number 10/715,722

**INFORMATION DISCLOSURE CITATION  
IN AN APPLICATION**

(Use several sheets if necessary)

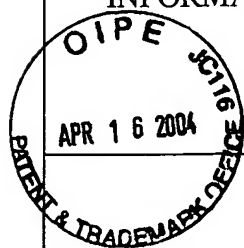
Applicant

Ralph A. DALLA BETTA et al.

Filing November 17, 2003

Group Art Unit 3616

Mailing Date April 13, 2004


**U.S. PATENT DOCUMENTS**

Examiner Initials	Ref. No.	Date	Document No.	Name	Class	Subclass	Filing Date If Appropriate
	1.	03/14/2002	2002/0031690	Shimazu et al.			
	2.	08/03/1993	5,232,357	Dalla Betta et al.			
	3.	10/05/1993	5,250,489	Dalla Betta et al.			
	4.	11/09/1993	5,259,754	Dalla Betta et al.			
	5.	08/15/1995	5,441,401	Yamaguro et al.			
	6.	10/17/1995	5,458,857	Collins et al.			
	7.	04/30/1996	5,512,250	Betta et al.			
	8.	07/13/1999	5,921,076	Krutzsch et al.			
	9.	09/14/1999	5,950,932	Takeda et al.			
	10.	10/19/1999	5,968,463	Shelef et al.			
	11.	11/09/1999	5,979,866	Baxter et al.			
	12.	08/29/2000	6,109,018	Rostrup-Nielsen et al.			
	13.	12/19/2001	6,161,378	Hanaoka et al.			
	14.	12/26/2000	6,165,633	Negishi			
	15.	01/02/2001	6,168,098	Brinn, Jr.			
	16.	01/16/2001	6,174,504	Silver et al.			
	17.	01/23/2001	6,176,078	Balko et al.			
	18.	07/31/2001	6,267,792	Nagamiya et al.			
	19.	09/24/2002	6,454,192	Perry			

**FOREIGN PATENT DOCUMENTS**

Examiner Initials	Ref. No.	Date	Document No.	Country	Class	Subclass	Translation YES NO
	20.	04/21/1993	EP 0 537 968	Europe			
	21.	04/25/2001	EP 1 094 206	Europe			
	22.	05/17/2001	WO 01/34950	WIPO			

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<b>Form PTO-1449</b>  <b>INFORMATION DISCLOSURE CITATION IN AN APPLICATION</b>  <i>(Use several sheets if necessary)</i>	Docket Number 2207720010800	Application Number 10/715,722
	Applicant  Ralph A. DALLA BETTA et al.	
	Filing November 17, 2003	Group Art Unit 3616
	Mailing Date April 13, 2004	

	23.	10/04/2001	WO 01/73878	WIPO			Abstract	
	24.	01/17/2002	WO 02/04346	WIPO				
	25.	06/13/2002	WO 02/45839	WIPO				

## OTHER DOCUMENTS

(including author, title, Date, Pertinent Pages, Etc.)

Examiner • Initials	Ref. No.	Title
	26.	Christensen, T. S. et al. (1994). "Improve Syngas Production Using Autothermal Reforming," <i>Hydrocarbon Processing</i> 73:39-41.
	27.	Costa, C. N. et al. (2001). "An Investigation of the NO/H <sub>2</sub> /O <sub>2</sub> (Lean-deNO <sub>x</sub> ) Reaction on a Highly Active and Selective Pt/La <sub>0.5</sub> Ce <sub>0.5</sub> MnO <sub>3</sub> Catalyst," <i>J. of Catalysis</i> 197(2):350-364.
	28.	Heck, R. M. et al., eds. (1995). "The Preparation of Catalytic Materials: Carriers, Active Components, and Nonolithic Substrates," Chapter 2 <i>In Catalytic Air Pollution Control: Commercial Technology</i> . Van Nostrand Reinhold pp. 19-27 (Includes Table of Contents).
	29.	Hepburn, J. S. et al. (1996). "Experimental and Modeling Investigations of NO <sub>x</sub> Trap Performance," <i>SAE Technical Paper Series</i> 962051:1-23.
	30.	Machida, M. et al. (2001). "Low Temperature Catalytic NO <sub>x</sub> -H <sub>2</sub> Reactions Over Pt/TiO <sub>2</sub> -ZrO <sub>2</sub> In an Excess Oxygen," <i>Applied Catalysis B Environmental</i> 35:107-116.
	31.	Miyoshi, N. et al. (1995). "Development of New Concept Three-Way Catalyst for Automotive Lean-Burn Engines," <i>SAE Technical Paper Series</i> 950809:121-130.
	32.	Shelef, M. (1995). "Selective Catalytic Reduction of NO <sub>x</sub> with N-Free Reductants," <i>Chem Rev</i> 95:209-225.

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